

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES 1 5	
2. AMENDMENT/MODIFICATION NO. 108		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO.	
5. PROJECT NO. (If applicable)		6. ISSUED BY CODE		7. ADMINISTERED BY (If other than Item 6) CODE	
John F. Kennedy Space Center, NASA Procurement Office – ODIN – OP-OS-ODIN Kennedy Space Center, FL 32899					
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State, and Zip Code) OAO Corporation 7375 Executive Place Seabrook, MD 20706-2278			(x) 9A. AMENDMENT OF SOLICITATION NO.		
			10A. MODIFICATION OF CONTRACT/ORDER NO. NAS5-98144/CC90303B		
			10B. DATED (SEE ITEM 13) December 1, 2001		
CODE		FACILITY CODE			
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS					
<p>[] The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers [] is extended, [] is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:</p> <p>(a) By completing Items 8 and 15, and returning ____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.</p>					
12. ACCOUNTING AND APPROPRIATION DATA (If required)					

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.	
	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: NAS5-98144 Contract Clause C.7 Technology Refreshment Process and FAR Clause 52.212-4 Contract Terms and Conditions-Commercial Items, (c) Changes
	D. OTHER (Specify type of modification and authority)
E. IMPORTANT: Contractor [] is not, [X] is required to sign this document and return <u> 1 </u> copies to the issuing office.	
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)	

Stennis Space Center --- ODIN SERVICES

Technology Infrastructures: SWRs **XJCN 3594 00 Rev-03A**

Change in Delivery Order Price: \$85,624.51 (INCREASE)

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) Keith L. Spencer Sr. Contracts Manager		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Penelope A. Ebright Contracting Officer	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED
(Signature of person authorized to sign)		BY (Signature of Contracting Officer)	

1. In accordance with Master Contract NAS5-98144, C.7, Technology Refreshment Process, the technology refreshment services referenced below is hereby incorporated into this Delivery Order at a fixed price of \$85,624.51

SWR #	Subject	Amount
XJCN 3594 00 Rev-03A	Install network and telephone cabling to E4 Test Control Center for NASA	\$85,624.51

2. SWR XJCN 3594 00 Rev-03A

The contractor shall provide the labor (including, but not limited to, engineering, configuration management, user coordination/scheduling, wiring/cabling and equipment installation) and materials necessary to install cabling and wiring to support E4 for NASA as outlined in OAO proposal dated January 5, 2004.

- a. The contractor (and its subcontractor) shall perform the following tasks:

BOE-TEL to work:

- (1) Install (1) 24SM/12MM fiber cable from B4010 to new E4.
- (2) Install (2) Cat6 wires to (16) locations for networks.
- (3) Install (1) Cat3 wire to (16) locations for telephones.
- (4) Install (1) RG6 coax to conference room for video.
- (5) Install (1) 19" x 84" equipment rack to mount network hub and fiber panel.
- (6) Install (2) double sided vertical troughs on equipment rack.
- (7) Install (2) Visipatch panels on existing plywood wall in communications room.
- (8) Install video receiver in E4.
- (9) Install video transmitter in B1201.
- (10) Install video directional coupler in B1201.
- (11) Install video tap in E4.
- (12) Install FlexTray under computer floor to place wiring.
- (13) Install (1) LGX fiber panel in E4.
- (14) Install (3) LGX fiber panel in B4010.
- (15) Install (2) Cat6 jacks at (16) locations.
- (16) Install (2) Cat3 jacks at (16) locations.
- (17) Install (1) video jack in conference room.
- (18) Install (1) 110 wiring block.
- (19) Install (1) Lew electric brass cover in conference room for jacks.
- (20) Install Caddy j-hooks above ceiling to place wiring.
- (20) Terminate fiber into ST connectors and place in LGX fiber panels at E4 and B4010.
- (21) Terminate Cat6 wiring on Visipatch panels and on Cat6 jacks.
- (22) Terminate Cat3 wiring on 110 wiring blocks and on Cat3 jacks.
- (23) Terminate RG59 coax into "F" connector and place in video jack in conference room and on tap in communications room.
- (24) Place Cat6 & Cat3 jacks in faceplates and attach to outlet boxes.
- (25) Place Visipatch horizontal troughs on Visipatch panels.
- (26) Install (48) solid copper cables from Visipatch panels to network hub.
- (27) Terminate solid copper cables on Visipatch panels.
- (28) Test and label fiber at E4 and B4010.
- (29) Test and label Cat6 wiring.
- (30) Test and label Cat3 wiring.
- (31) Test and label RG59 coax.
- (32) Place fiber jumpers to activate network hub and video receiver.

OAO to work:

- (1) Install GFE network hub in existing equipment rack.
- (2) Place fiber cross connects to activate network hub.
- (3) Test and label network hub.
- (4) Install video transmitter, video receiver and associated video equipment for SSC cable T.V.
- (5) Place fiber cross connects to activate SSC cable T.V.
- (6) Test and label video transmitter and receiver.
- (7) Install UMC chassis and associated circuit cards.
- (8) Place fiber cross connects to activate UMC.
- (9) Test and label UMC chassis.
- (10) Install FDLN telephone remote module and associated circuit card in PointSpan.
- (11) Place fiber cross connects to activate FDLN.
- (12) Test and label FDLN.

b. The contractor (and its subcontractor) shall provide the following material:

BOE-TEL to provide:

- (1) 8,000 feet of Avaya 2071 Cat6 plenum wiring (CMP-00424MAX-7U-06)
- (2) 4,700 feet Corning 12mm/24sm Altos fiber cable (370-342-HYBRIA-12/24)
- (3) 4,000 feet of Avaya Cat3 plenum wiring (CMP-00424MAX-3U)
- (4) 1,000 feet of Belden 9248 PVC RG6 coax (
- (5) 144 each cool cure consumables (142172)
- (6) 96 each P3020A-Z-125 singlemode ST connectors (157475)
- (7) 96 each C3000A-2 singlemode ST couplers (105263)
- (8) 50 each Caddy J-hooks (184873)
- (9) 48 each Avaya Cat6 solid copper cables (108793-969-06-25)
- (10) 48 each P2020C-C-125 multimode ST connectors (118974)
- (11) 48 each C2000A multimode ST couplers (088987)
- (12) 32 each Avaya T568A/B Cat6 jack (246746) Green
- (13) 32 each Avaya M1BH Cat3 jack (240707) Gray
- (14) 32 each 110C-4 connectors for 110 wiring blocks (073039)
- (15) 20 each D-rings
- (16) 20 each 8-inch L brackets (217074)
- (17) 20 each stanchion clamp (216883)
- (18) 16 each Avaya M14L-262 faceplate (197613) white
- (19) 16 each Avaya Visipatch distribution rings (532421)
- (20) 11 each FlexTray 2" x 8" x 10' (174337)
- (21) 4 each Panduit outlet boxes (207089)
- (22) 4 each LST1U-072/72 termination shelf (106722)
- (23) 4 each 1000ST panels for termination shelf (106730)
- (24) 4 each 1-meter SSCA/SCA fiber jumper
- (25) 2 each BNI F/O splitter (OTR-505/50-R17-SCA) Toner
- (26) 2 each double sided vertical trough (166031)
- (27) 2 each Avaya 336-pair Visipatch (532210)
- (28) 2 each Avaya Visipatch horizontal duct (539650)
- (29) 1 each BNI TR2200-750 (38)-R17-SCA receiver Toner
- (30) 1 each BNI TR2100-7709-860SC (8MW) transmitter Toner
- (31) 1 lot of video connectors and misc.
- (32) 1 each Regal RLDC1-12 directional coupler
- (33) 1 each Regal RMT-108-20 video tap

- (34) 1 each CPI 19" x84" aluminum equipment rack (086047)
- (35) 1 pack washer splice kit (214856)
- (36) 1 each Avaya 110AW2-100 wiring block (154069)
- (37) 1 each Avaya 4-port mounting frame (142316)
- (38) 1 each Lew electric brass cover plate (DFB-1) (Monty Electric)

OAO to provide:

- (1) 2 each Fiber optic transceiver (F)-XCVR (0120-0040)
- (2) 2 each LET POTS unit (L-POTS) (0110-0150)
- (3) 2 each RST POTS unit (R_POTS) (0110-0196)
- (4) 2 each T1 Asynch. CHNL. (DSX) (T1AXX) (0110-0193)
- (5) 1 each Central Processing Unit (CPU2 Ver8.0) (0101-0027)
- (6) 1 each remote Sub. PWR. Supply (R-PUS) (0101-0006)
- (7) 1 each CBA CON-C chassis ((0210-0033)
- (8) 2 each Adtran TSU600 (1202076L2#DC)
- (9) 1 each Adtran ISU128 rack mount modem (1200087L1)
- (10) 1 each Adtran ISU128 stand alone (120209L2)
- (11) 2 each Adtran Dual UBRITE (1200108L1)
- (12) 24 each 50 feet 25-pair cable e/w single ended male connector (143745)
- (13) 4 each 110AW2-100 wiring block (154069)
- (14) 1 each power supply for UMC & Adtran (500-1249-001)
- (15) 1 each FDL M (500-1248-001)
- (16) 1 each IM card for B4010 (300-0391-001)

- c. Schedule: The completion of this effort shall be (10) ten weeks after the receipt of a signed Modification.
- d. As agreed to with the contractor, OAO shall be responsible for getting plywood on communications closet walls.(Ref Notes #8)

- 3. Part II "Contract Administration Data", Item 4, is revised as indicated below to incorporate the increase of \$85,624.51 for this infrastructure upgrade:

ESTIMATED TOTAL (Contract Item 4) (through Mod 108)

Ordered Seats and Services	\$ 9,400,778.07
Catalog Actuals	\$ 605,709.12
Specialized Services Actuals	\$ 225,331.78
Infrastructure upgrades	\$ 2,911,108.59
Fast Track Mods Authorized	\$ 26,656.57
Subtotal	\$ 13,169,584.13
Less credits	\$ (2,625.55)
Less retainage not earned	\$ (33,905.56)
Subtotal	\$ 13,133,053.02
Seats/service levels projected through 11/30/04	\$ 4,218,552.91
Total Estimated Delivery Order Value	\$ 17,351,605.93

4. Part V "Technology Infusion (Infrastructure Upgrades)", Item 2 is modified to include the subject infrastructure upgrades. The signed date and completion date will be completed in a future infrastructure upgrade modification.

Mod No.	Description	Date Signed	Date Completed	Amount
108	XJCN 4594 00 Rev-03A Install network and telephone cabling to E4 Test Control Center for NASA			\$85,624.51

5. Payment Schedule: Invoicing and Payment for this modification will be made in accordance with Master Contract NAS5-98144, FAR 52.212-4: Commercial Items (May 1997) (Modified).
6. Reporting requirements: The contractor shall provide monthly status reports to the SSC Alternate DOCOTR, with a copy to the DOCO. These reports shall include, as a minimum, installation progress, and potential problem areas.
7. In consideration of the modification agreed to herein as complete equitable adjustment for the changes set forth, the Contractor hereby releases the Government from any and all liability under this delivery order for further equitable adjustments attributable to such facts or circumstances giving rise to these changes.
8. All other terms and conditions of this Delivery Order remain unchanged and in full force and effect.